



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 14, 1996

Lonnie Hogan
Uintah County
147 East Main
Vernal, Utah 84078

Re: Review of Notice of Intention to Revise/Amend Large Mining Operations, Uintah County Asphalt Mine, M/047/022, Uintah County, Utah

Dear Mr. Hogan:

On June 10, 1996, the Division received the submission to revise/amend the large mining operations notice of intention for the Uintah County Asphalt Mine. After reviewing the submission, the Division has categorized the proposal as an "amendment" to the existing large mining operations notice of intention. The Division has completed a review of this amendment and has a number of comments which will need to be responded to before approval for this amendment can be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

R647-4-105 Maps, Drawings & Photographs

105.2 Surface facilities map

The additional surface facilities map received July 18, 1996, provides some additional details describing the current facilities on site. Additional features which should be shown and labeled on this map include: buildings, equipment (scales), utilities, power lines, drainage control structures (culverts, diversions, ponds), topsoil storage areas, overburden storage areas, ore storage areas, equipment storage areas, and areas of active mining. Please provide a revised version of this map which includes the additional features mentioned above. (AAG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

3.11 Regraded slopes to be left at steeper than 2h:1v.

The submission does not describe the configuration of the slopes or highwalls in the "new area" after mining ceases. Please provide both a written description and a cross sectional drawing of the proposed final configuration of these slopes/highwalls. (AAG)

3.15. Sediment ponds, diversion channels, culvert size and locations,

The submission does not describe any new features or structures for the control of



surface runoff. Please show and label all water diversion/drainage structures on the surface facilities drawing or another appropriate drawing. (AAG)

3.16. Baseline information maps and drawings including soils,

Please provide a more detailed base map describing the current conditions within the existing mine permit area and within the amendment area. This map should show current topography, current structures and facilities, current topsoil stockpiles, ore stockpiles, overburden, revegetated areas, etc. Also see comments under section 105.2 facilities map. (AAG)

3.17. A reclamation activities and treatment map

Please provide a reclamation treatments map for all areas which are affected by this amendment. Areas shown on this map should be color keyed or hatched to identify areas receiving the different reclamation treatments such as top soiling, no topsoiling, regrading, ripping, scarifying, mulching, fertilizing, seeding, etc. This map would be of the same scale as the facilities map. (AAG)

R647-4-106 Operation Plan

106.2 Type of operations conducted, mining method, processing etc.

Please describe the mining methods and equipment proposed for this amendment area. Please provide an estimate of the amounts of ore and waste materials to be produced per year under this amendment. (AAG)

106.5 Existing soil types, location, amount.

Please describe the existing soil types, location and depth in the project area. If the soil types are the same as those in the existing permit area, please indicate this. What is the estimated volume of soils to be salvaged and placed in the visual buffer berm? Please note, it is important to segregate topsoil, subsoil and overburden into separate piles and to replace them in the same order upon reclamation. Locations of topsoil, subsoil and overburden stockpiles needs to be shown on a facilities map (see comments under R647-4-105.3.16). (LK)

106.6 Plan for protecting & redepositing soils.

Please describe how soil stockpiles will be protected from further impacts during operations and how they will be reapplied at the time of final reclamation. (LK)

106.7 Existing vegetation-species and amounts.

Please describe the existing vegetative community in the proposed project area. If the vegetation is essentially the same as the vegetation that existed in the current project area, please indicate this. Otherwise, provide the amount of vegetative cover and the dominant species that exist on the proposed expansion area. (LK)

106.9 Location & size of ore, waste, tailings, ponds

Will asphalt ore be stockpiled on site? If so, please show this stockpile area on the surface facilities map and estimate the amount of material to be stockpiled. (AAG)

R647-4-107 Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

Will warning signs be posted to prevent public access to the amendment area? If not, please explain why they are not needed. (AAG)

107.1.15 Constructing berms, fences, etc. above highwalls

Will fencing be extended around the amendment area to prevent public access? If not, please explain why this is not needed. (AAG)

107.2 Drainages to minimize damage

What specific measures will be taken in the amendment area during operations to minimize damages to the affected drainages? (AAG)

107.3 Erosion control & sediment control

Please describe the specific erosion and sediment control measures to be implemented in the amendment area and the "berm" area. The general description on page 25 of the existing plan is not specific enough (*"Current efforts of erosion control include ditching and discing contour and catch basin work. If the reclamation strategy proposed by this plan is followed, there should be few erosion problems when reclamation is completed."*). Which hydrologic features of the amendment area will tie into existing erosion and sediment control structures? Will the "new area" impound surface water? Where will storm water from the amendment area drain to? What measures will be taken to prevent oily water from leaving the pit area? (AAG)

107.5 Suitable soils removed & stored

A soils analysis needs to be provided for each soil type in the amendment area that is not also within the existing permit area. The following parameters need to be analyzed: Texture, Saturation Percentage, Percent Organic Matter, pH, EC (conductivity), Sodium Absorption Ratio, Alkalinity, CaCO_3 , Cation Exchange Capacity, Selenium, Nitrogen, Phosphorus and Potassium. Describe how soils will be removed and stored for later reclamation. Refer also to comments under R647-4-106.5. (LK)

R647-4-109 Impact Assessment

109.1 Impacts to surface & groundwater systems

Page 25 of the original notice of intention states that current efforts for erosion control include ditching & discing contour and catch basin work. Please describe the specific

structures currently in use at the mine to control erosion. In addition, please describe the modifications or additions to these current erosion control structures to be made as a result of this amendment. (AAG)

109.4 Slope stability, erosion control, air quality, safety

Please describe any measures which will be taken in the amendment area to ensure slope stability, minimize erosion, minimize dust generation, and minimize public safety hazards. (AAG)

R647-4-110 Reclamation Plan

110.2 Roads, highwall, slopes, drainages, pits, etc. reclaimed

Will the berm area be reclaimed in place or will the berm materials be used in regrading the disturbed areas at the time of final reclamation? (AAG)

110.5 Revegetation planting program

Seed mixes for reclamation should be revised to improve likelihood for revegetation success in establishing a diverse, permanent vegetation cover that will meet the intended post mining land use. Attached is a recommended seed mix for this purpose. If this mix is acceptable, please indicate this. Otherwise provide an alternative seed mix that includes 4-5 grasses, 3-4 forbs and 4-5 shrubs. Inasmuch as there may be a slight salt problem (as indicated on soil analyses in the original notice of intention), species should have some salt tolerance. (LK)

R647-4-111 Reclamation Practices

111.12 Topsoil redistribution

See comments under R647-4-106.5 and 106.6. (LK)

111.13 Revegetation-adaptable species

See comments under R647-4-110.5. (LK)

R647-4-112 Variance

No variances were requested in this submission. The Division understands this to mean that for the amendment area Uintah County will adhere to all applicable portions of the Minerals Rules sections R647-4-107 Operation Practices, R647-4-108 Hole Plugging Requirements, and R647-4-111 Reclamation Practices. (AAG)

R647-4-113 Surety

The current surety for this operation is an agreement between Uintah County and the Board of Oil, Gas and Mining. The surety proposed for this new amendment is an extension or reaffirmation of that agreement to reclaim the site. Any modifications to that agreement will require Board approval.

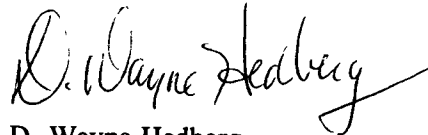
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No reclamation estimate was included in this amendment submission. The Division has prepared draft estimates for the amendment area only and for the entire permit area (including the new area). The amounts of reclamation surety in terms of the year 2001 dollars for the amendment and entire site are \$14,619 and \$146,400, respectively. Copies of these estimates are attached for your review. (AAG)

R647-4-116 Public Notice & Appeals

The Division will suspend any further review of this amendment until the additional information requested has been provided. Because this proposal has been categorized as an amendment, the Division will not go through a 30-day public comment period prior to granting approval of the amendment. The proposed form of reclamation surety will need to be presented to the Board for approval after the additional information is received. If you have any questions regarding these review comments please call me, Tony Gallegos, Tom Munson, or Lynn Kunzler here at the Division. Thank you for your attention in this matter.

Sincerely,



D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb

Attachments: DOGM reclamation estimates, DOGM recommended seed mix
cc: Tom Bachtell, M/047/032
MaryAnn Wright, Associate Director

Recommended Revegetation Species List
for

Uintah County
Uintah County Asphalt Mine
M/047/022

Prepared by DOGM July 30, 1996

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
'Hycrest' crested wheatgrass	<u>Agropyron cristatum 'Hycrest'</u>	0.5
Intermediate wheatgrass	<u>Agropyron intermedium</u>	1.0
'Piute' Orchard Grass	<u>Dactylis glomerata 'Piute'</u>	0.5
Basin Wildrye	<u>Elymus cinereus</u>	1.5
Indian ricegrass	<u>Oryzopsis hymenoides</u>	1.5
Cicer Milkvetch	<u>Astragalus cicer</u>	1.0
Ladac Alfalfa	<u>Medicago sativa</u>	1.0
Yellow sweetclover	<u>Melilotus officinalis</u>	0.5
Palmer penstemon	<u>Penstemon palmeri</u>	0.5
Small burnet	<u>Sanguisorba minor</u>	1.5
Wyoming big sagebrush	<u>Artemisia tridentata wyomingensis</u>	0.1
4-Wing Saltbush	<u>Atriplex canescens</u>	1.0
Rubber rabbitbrush	<u>Chrysothamnus nauseosus</u>	0.25
Forage kochia	<u>Kochia prostrata</u>	0.5
Bitterbrush	<u>Purshia tridentata</u>	1.0
Total		12.35 lbs/ac

*This the recommended drill seeding rate.

If the species are to be broadcast seeded, increase the rate by 50%.

RECLAMATION ESTIMATE**DRAFT**

Uintah County

last revision

08/13/96

Asphalt Mine - June 1996 Amendment

Uintah County

M/047/022

filename M47-22.WB2

page "amend1996"

Prepared by Utah State Division of Oil, Gas & Mining

**SUMMARY OF ALL UINTAH COUNTY ASPHALT PERMIT AREAS
AMENDED TO THE PERMIT AS OF THIS DATE**

AREA R-1	8.33 acre			
	SUBTOTAL R-1		\$6,462	
AREA R-2	7.02 acre			
	SUBTOTAL R-2		\$5,992	
AREA R-3	18.1 acre			
	SUBTOTAL R-3		\$41,725	
AREA R-4	11.84 acre			
	SUBTOTAL R-4		\$10,924	
AREA R-5	17.25 acre			
	SUBTOTAL R-5		\$17,543	
AREA R-6 (1993 amendment)	8.00 acre			
	SUBTOTAL R-6		\$6,412	
AREA R-7 (1996 AMENDMENT)	10.00 ACRE			
	SUBTOTAL R-7		\$14,619	
Equipment mobilization	4 equip	1,000	4,000	(6)
Project supervision	5 week	1,900	9,500	(7)
	SUBTOTAL		117,177	
	+ 10% CONTINGENCY		11,718	
	SUBTOTAL		128,894	
	+5yr ESCAL (2.58%)		17,508	
	TOTAL		\$146,402	

ROUNDED TOTAL IN 2001-\$ \$146,400

Average cost per disturbed acre =	1,818 \$/acre
Total disturbed acreage =	80.5 acre
Total permit acreage =	89.0 acre

RECLAMATION ESTIMATE

DRAFT

Uintah County

last revision

10/18/93

Asphalt Mine

Uintah County

M/047/022

filename M47-22.WB2 (from M47-22WQ1)

Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Details

- This estimate adjusts the Division 10/18/93 estimate to current 1996 unit costs
- Acreages: R-1 8.3 acres, R-2 7.0 acres, R-3 18.1 acres, R-4 11.8 acres, R-5 17.3 acres
- July 1993 amendment added area R-6 with 8 acres disturbance, 16.5 acres permit area
- Productivity levels and times taken from the 1988 estimate when possible
- Reclamation tasks for the R-6 area were assumed to be similar to R-4 area
- Use a seed mix cost of 95 \$/acre (1)
- Use a D8N dozer for earthwork at 201 \$/hr (2)
- Use a fertilizer cost of 0.41 \$/lb (3)
- Use a drill seeding cost, including mulch, of 150 \$/acre (4)
- Use a broadcast seeding cost, including mulch, of 140 \$/acre (5)
- Use a monitoring cost per area (1 day/yr, 3 yrs) 600 \$/area (6)
- USE a cleanup cost (1 hr/acre) of 15 \$/hr (6)
- ASSUME: mobilization of 1 dozer; 1 FE loader, 1 truck, 1 tractor

AREA R-1		8.33 acre		
Description	Amount	\$/Unit	Cost-\$	
Earthwork (600 CY/hr)	8 hr	201	1,668	
Discing (4.35 acre/hr)	2 hr	201	385	
Drill seeding (2.18 acre/hr)	4 hr	150	573	
Broadcast seeding-truck (4.8 acre/hr)	12 hr	140	1,636	
Seed Mix	8.33 acre	95	791	
Fertilizer (200 lb/acre)	1,666 lb	0.41	683	
Cleanup	8.33 acre	15	125	
Monitoring (1 day/yr for 3 yrs)	1 area	600	600	
SUBTOTAL R-1			\$6,462	

AREA R-2		7.02 acre		
Description	Amount	\$/Unit	Cost-\$	
Earthwork (600 CY/hr)	7 hr	201	1,407	
Discing (4.35 acre/hr)	2 hr	201	324	
Drill seeding (2.18 acre/hr)	3 hr	150	483	
Broadcast seeding-truck (4.8 acre/hr)	13 hr	140	1,829	
Seed Mix	7.02 acre	95	667	
Fertilizer (200 lb/acre)	1,404 lb	0.41	576	
Cleanup	7.02 acre	15	105	
Monitoring (1 day/yr for 3 yrs)	1 area	600	600	
SUBTOTAL R-2			\$5,992	

AREA R-3		18.1 acre		
Description	Amount		\$/Unit	Cost-\$
Earthwork (600 CY/hr, grading to 3:1)	176 hr		201	35,376
Discing (4.35 acre/hr)	4 hr		201	836
Drill seeding (2.18 acre/hr)	8 hr		150	1,245
Broadcast seeding-truck (4.8 acre/hr)	1 hr		140	192
Seed Mix	18.10 acre		95	1,720
Fertilizer (200 lb/acre)	3,620 lb		0.41	1,484
Cleanup	18.10 acre		15	272
Monitoring (1 day/yr for 3 yrs)	1 area		600	600
SUBTOTAL R-3				\$41,725

AREA R-4		11.84 acre		
Description	Amount		\$/Unit	Cost-\$
Earthwork (600 CY/hr)	31 hr		201	6,271
Discing (4.35 acre/hr)	3 hr		201	547
Drill seeding (2.18 acre/hr)	5 hr		150	815
Broadcast seeding-truck (4.8 acre/hr)	3 hr		140	417
Seed Mix	12 acre		95	1,125
Fertilizer (200 lb/acre)	2,368 lb		0.41	971
Cleanup	11.84 acre		15	178
Monitoring (1 day/yr for 3 yrs)	1 area		600	600
SUBTOTAL R-4				\$10,924

AREA R-5		17.25 acre		
Description	Amount		\$/Unit	Cost-\$
Earthwork (600 CY/hr)	48 hr		201	9,568
Discing (4.35 acre/hr)	4 hr		201	797
Drill seeding (2.18 acre/hr)	8 hr		150	1,187
Broadcast seeding-truck (4.8 acre/hr)	2 hr		140	318
Seed Mix	17.25 acre		95	1,639
Fertilizer (200 lb/acre)	3,450 lb		0.41	1,415
Monitoring (1 day/yr for 3 yrs)	1 area		600	600
Cleanup & structural removal	128 hr		15	1,920
Landfill fee for debris	1 sum		100	100
SUBTOTAL R-5				\$17,543

AREA R-6 (NEW AREA)		8 acre	
Description	Amount	\$/Unit	Cost-\$
Earthwork (600 CY/hr) ASSUMED	16 hr	201	3,216
Discing (4.35 acre/hr)	2 hr	201	370
Drill seeding (2.18 acre/hr)	4 hr	150	550
Broadcast seeding-truck (4.8 acre/hr)	1 hr	140	140
Seed Mix	8.00 acre	95	760
Fertilizer (200 lb/acre)	1,600 lb	0.41	656
Cleanup	8.00 acre	15	120
Monitoring (1 day/yr for 3 yrs)	1 area	600	600
SUBTOTAL R-6			\$6,412

RECLAMATION ESTIMATE

DRAFT

Uintah County

last revision

08/13/96

Asphalt Mine - June 1996 Amendment

Uintah County

M/047/022

filename M47-22.WB2

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Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Details

-This page is for the amendment received June 10, 1996 ONLY

-Present acreages: R-1 (8.3), R-2 (7.0), R-3 (18.1), R-4 (11.8), R-5 (17.3), R-6 (16.5)

-June 1996 amendment increases the disturbed area by 10 acres

-Productivity levels and times taken from the 1988 estimate when possible

-Reclamation tasks for the amendment area were assumed to be similar to R-4 area

-Use a seed mix cost of **95 \$/acre**

-Use a D8N dozer for earthwork at **201 \$/hr**

-Use a fertilizer cost of **0.41 \$/lb**

-Use a drill seeding cost, including mulch, of **150 \$/acre**

-Use a broadcast seeding cost, including mulch, of **140 \$/acre**

-Use a monitoring cost per area (1 day/yr, 3 yrs) **600 \$/area**

-USE a cleanup cost (1 hr/acre) of **15 \$/hr**

-ASSUME: mobilization of 1 dozer; 1 FE loader, 1 truck, 1 tractor

AREA R-7 (1996 amendment area)

10 acre

Description	Amount		\$/Unit	Cost-\$
Earthwork (600 CY/hr) ASSUME	54	hr	201	10,809
Discing (4.35 acre/hr)	2	hr	201	462
Drill seeding (2.18 acre/hr)	5	hr	150	688
Broadcast seeding-truck (4.8 acr	1	hr	140	140
Seed Mix	10	acre	95	950
Fertilizer (200 lb/acre)	2,000	lb	0.41	820
General area cleanup	10	hr	15	150
Monitoring (1 day/yr for 3 yrs)	1	area	600	600

SUBTOTAL R-7

\$14,619